

IEEE 802.1 Maintenance Request

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| IEEE 802.1 REVISION REQUEST 0042 |
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DATE: July 26, 2012

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REQUESTED REVISION:

STANDARD: 802.1Q-2011

CLAUSE NUMBER: 10.3

CLAUSE TITLE: MRP Attribute Propagation

RATIONALE FOR REVISION:

One intention for 10.3 is clear:

Propagation of an attribute through the network follows the active topology of the Spanning Tree Instance associated with that attribute.

However, the wording of 10.3, if strictly followed, does not necessarily achieve this goal. One result is that it could allow for declarations to be propagated from blocked ports.

It is clear from the wording that the set of ports that is being dealt with are only those which are in the Forwarding state for the relevant MAP context. It is not made explicitly clear that the relevant set of attribute values are only those which are associated with that same MAP context.

2 Examples follow.

First:

10.3.(a) says, "Any MAD_Join.indication ... received by MAP from a given Port in the set is propagated as a MAD_Join.request to the instances(s) of MAD associated with each other Port in the set."

The intention here seems to be that propagation only occurs if the MAD_Join.indication is for an attribute value which is associated with this same MAP Context, but this intention is not stated.

And so if a port which is blocked in MSTI1, but forwarding in MSTI2, and if a MAD_Join.indication is received for an attribute associated with MSTI1, 10.3.(a) can be interpreted as saying that when the MAP function is run for MSTI2, the attribute associated with MSTI1 is propagated to other ports in the forwarding set for MSTI2.

Second:

10.3.(e) says, "If a Port is removed from the set, and that Port has registered an attribute and no other Port has, then MAD_Leave.requests

are propagated to the MAD instances for each of the other Ports in the set."

The intention is clearly that "an attribute" only refers to attributes associated with the MAP Context that "the set" is associated with. But, as worded, if a port leaves the forwarding set on one MSTI, then MAD_Leave.requests are propagated to the other ports (but only ports which are Forwarding in the current MAP Context) for attributes associated with ANY MAP Context.

The proposed revision would have 10.3 explicitly state the independence of MAP Contexts which is implied.

PROPOSED REVISION TEXT:

"
For a given MRP application and MAP Context (10.3.1), and for the set of Ports that are in a Forwarding state as defined by that MAP Context:
"

becomes

"
For a given MRP application and MAP Context (10.3.1), and for the set of Ports that are in a Forwarding state as defined by that MAP Context, and for the set of attributes associated with that MAP Context:
"

IMPACT ON EXISTING NETWORKS:

Any existing implementations which interpret 10.3 strictly in this sense will likely already have interoperability issues. Most existing devices likely have implemented it as is implied, however. So the proposed change would likely be only one of modifying the language to more closely match the intention (and existing implementations).

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| Please attach supporting material, if any
| Submit to:- Tony Jeffree, Chair IEEE 802.1
| and copy:- Paul Congdon, Vice-Chair IEEE 802.1
| E-Mail: stds-802-1-maint-req@ieee.org
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